

SUBJECT: Management of the Edwards Aquifer

COMMITTEE: Natural Resources — favorable, committee substitute recommended

VOTE: 9 ayes — Counts, Harris, Combs, Greenberg, Hochberg, Lewis, Puente,
Turner, Yost

2 nays — Bosse, Nieto

SENATE VOTE: On final passage, May 11 — 29-2 (Bivins, Sims)

WITNESSES: For — None

Against — None

On — Rodney Reagan; Maurice Rimkus; James Kowis, Texas Water
Commission

BACKGROUND: The Edwards Aquifer is a waterbearing limestone formation encompassing nearly 8,000 square miles and including all or part of 13 south-central Texas counties. The term "Edwards Aquifer" usually refers to the recharge and artesian portions of the aquifer, which have a combined area of about 3,600 square miles and span approximately 180 miles from west to east. The Edwards Aquifer serves as a water source for areas surrounding San Antonio, New Braunfels, San Marcos, Hondo, Castroville and Uvalde.

Estimates of water volume in the aquifer range from 15 to 30 million acre-feet. The aquifer region includes three distinct segments — the Drainage Area (Edwards, Real, Kerr, Kendall and parts of Bexar, Comal and Hays counties), the Recharge Area (part of Kinney, Uvalde, Medina, Bexar, Comal and Hays counties), and the Artesian/Reservoir Area, which is where vast amounts of groundwater are stored and underlies Kinney, Uvalde, Medina, Bexar, Comal and Hays counties.

Water cannot seep straight down into the artesian area from the surface due to impermeable layers such as clays between the surface and the aquifer. In certain places where there is enough artesian pressure, some of the water is forced to the surface through geologic faults, also known as springs.

(Comal Springs and San Marcos Springs flow from the aquifer and are tributaries of the Guadalupe River.)

Flowing wells are also the result of artesian pressure. Water leaving the aquifer is referred to as discharge and occurs either naturally by springs or through flowing and pumped wells.

The Texas Water Development Board estimates that at current consumption levels, demand for water in this region could exceed 850,000 acre-feet per year by the year 2020. According to the U.S. Geological Survey, average annual recharge to the aquifer is 636,800 acre-feet. Total discharge, from wells and springs, in 1990 was 730,000 acre-feet.

Aquifer history. From 1950-1956, Texas experienced a record draught, causing Comal Springs in New Braunfels to go dry for five months and reducing the flow of San Marcos Springs to 46 cubic feet per second (cfs) at the drought's peak in 1956. In response, the Edwards Underground Water District (EUWD) was legislatively created in 1959 to conserve, protect and recharge the groundwater in the five counties known as the Edwards Aquifer region. The district, governed by a 12-member board elected by popular vote within the counties, issued the first rules regulating development over the Edwards recharge zone, including restricted zones and rules on waste disposal, in 1970.

Several "mini-droughts" have occurred since 1956. In 1988 the Edwards Underground Water District established a Drought Management Plan, with user requirements. In January 1989 Medina and Uvalde Counties withdrew from the district and attempted to establish single county underground water districts. The Medina County Underground Water District was approved during the 72nd Legislature's regular session. The Uvalde District failed to win approval during that session, but HB 1216 by Nieto, which has passed the House, would validate the district..

In April 1992 TWC declared the Edwards an "underground river" and, as such, found the water to be the property of the state and subject to commission regulation. The commission immediately adopted emergency rules and a moratorium on new wells.

In August 1992 the TWC and U.S. Fish and Wildlife Service (USFWS) announced an agreement on a management plan for the Edwards as a basis for an "incidental take" permit under the federal Endangered Species Act. "Incidental take" permits are granted by USFWS to authorize the accidental "taking" of an endangered species only if the entity involved has taken sufficient actions to guarantee that continued existence of the species will not be jeopardized. TWC adopted final Edwards rules to limit pumping and required permits based on historic use, continuing a moratorium on new wells. On September 11, a state court invalidated the TWC rules (*Texas Farm Bureau, Cattleranchers Association, et al. v the Texas Water Commission*). This case is being appealed.

In May 1991 the Sierra Club filed a lawsuit against the USFWS (*Sierra Club v Lujan*) based on the federal Endangered Species Act, which mandates the protection of endangered species and their habitat. The suit asked the USFWS to ensure minimum spring flow in the Edwards Aquifer to protect endangered species that could be affected by aquifer flow. On January 30, 1993, U.S. District Judge Lucius Bunton ruled in favor of the Sierra Club and ordered that springflow must be maintained, the TWC must submit a plan to the Court by March 1, 1993, to assure that Comal and San Marcos Springs will not drop below jeopardy levels and that the Legislature must enact a regulatory system to limit withdrawals from the Edwards Aquifer by May 31, 1993. The case is being appealed.

Underground Water Conservation Districts. Underground water conservation districts (UWCDs), governed by Chapter 52 of the Water Code, have the authority to regulate spacing and production of water wells to minimize the decline of the water table and related problems. They may also issue drilling permits for wells expected to pump more than 25,000 gallons per day and construct dams to create lakes. The districts may issue bonds and levy taxes approved by a majority of a district's voters and have rule-making authority. Chapter 52 UWCDs are governed by, at minimum, a five-member board of directors, four selected from county commissioner precincts to serve four-year terms and one at-large member. Larger districts, usually encompassing more than one county, may have up to nine directors. TWC supervises the districts pursuant to an extensive set of regulations.

Legislative Natural Resources Board (LNRB). The LNRB was created during the 72nd Legislature, first called session, as an agency of the legislative branch. The board has oversight and review of the implementation of legislative natural resources policy by state agencies and would guide the transition of the Texas Water Commission and the Air Control Board to the Texas Natural Resources Conservation Commission, until its termination on January 1, 1994.

DIGEST: CSSB 1477 would create the Edwards Aquifer Authority and the Regional South Central Texas Water Council and would provide for the regulation of water withdrawn from the aquifer.

Edwards Aquifer Authority. The Edwards Aquifer Authority would have the power to regulate underground water within the boundaries of the aquifer, as described in the bill. The Authority would be charged with all of the power provided to a local government to prevent pollution and enforce water quality standards. The Authority could hold permits under state law or the federal Endangered Species Act and could execute contracts for the construction, operation, financing and maintenance of water supplies, including dams, reservoirs, treatment facilities, transmission facilities and recharge projects. The Authority could not charge any management or special fees for the operation of these facilities. The Authority would also have the power of eminent domain, except for the acquisition of rights to underground water.

The Authority would have a nine-member board of directors, including:

- a member appointed by the South Central Texas Water Council;
- three residents of Bexar County, two of which are appointed by the city of San Antonio, and one appointed by the Bexar County Commissioner's Court;
- one resident of Comal County or the city of New Braunfels;
- one resident of Hays County appointed by the city of San Marcos;
- one resident of Uvalde County appointed by the Uvalde Underground Water Conservation District; and
- one member appointed in rotation to represent Atascosa, Caldwell, or Guadalupe County.

The initial directors would draw lots to determine their terms with four serving terms expiring June 1, 1995, and five serving terms that would expire June 1, 1997. Subsequent directors would serve staggered four-year terms. Acts of the board would be valid only if adopted by vote of a majority of the members. Members would not receive any compensation but could be reimbursed for actual and necessary expenses incurred.

Research. The Authority would assist research on the technological feasibility of springflow and yield enhancement to help manage water resources, monitor and protect water quality, enhance the recharge, augment springflow and enhance yield, and develop alternative water supplies.

Taxation. The Authority could not levy a property tax but could issue revenue bonds to finance the purchase of land or facilities and equipment. Bonds issued would be subject to review and approval of the attorney general and the water commission.

Withdrawal fees. The cost of reducing withdrawals would be borne by aquifer users and downstream water rights holders. To finance its administrative expenses and programs, the Authority would assess equitable aquifer management fees based on aquifer usage. Special fees would be assessed on all downstream water rights holders in the Guadalupe River Basin. Money derived from the fees would be used to finance meeting the target limits. The amount of the special fees would be determined in accordance with an agreement adopted by the council and approved by the South Texas watermaster program. Special fees could not be used to finance a surface water supply reservoir project and could not be assessed on contractual deliveries of water stored in Canyon Lake or on hydroelectric water usage at the dams listed in the bill. Anyone making a contractual sale of water stored upstream of Canyon Dam could not establish rates requiring purchasers to pay the special fee.

The Authority could establish different fee rates on a per acre-foot basis for different types of uses. However, the fee rate for agricultural use could not be more than \$2 or 20 percent of the fee rate for municipal use. The Authority could impose a registration application fee of not more than \$10.

Water diversion. The Authority could divert water from the Guadalupe River from a diversion point on the river downstream of the point where the river emerges as a spring to provide water for the creation or maintenance of artificial habitat for endangered or threatened species, springflow augmentation, or to supplement aquifer recharge if the diversion is made to increase the yield of the aquifer and does not impair senior water rights or vested riparian rights

Legislative oversight. The Authority and water districts would be subject to legislative review by the Legislative Natural Resources Board. The initial report would be made during the regular session of the 74th Legislature, with the board making recommendations for continuation of the stewardship of the Authority or the transference of the Authority's duties to the water commission. The Authority would be subject to sunset review and would be abolished unless legislatively continued before September 1, 2005.

Regional South Central Texas Water Council. CSSB 1477 would create the South Central Texas Water Council to advise municipalities, water districts and member counties on all water rights and issues. Council members would include one representative from each municipality with a population of over 50,000 and one member from each of the enumerated counties. The Council would be responsible for assisting the Authority in developing and implementing a demand management plan.

Council members could participate in Authority board meetings to represent water concerns and assist in preparing solutions, and the Authority would be required to include each Council member in the communications extended to each member. The Council could request the Authority to reconsider an action that was considered prejudicial to regional water interests. If the Authority failed to return a satisfactory resolution, the Council, by two-thirds vote, could request that the commission review the action. If the commission did not consent to the action of the Authority, the action would be annulled.

The presiding officer of the council would be required to submit a report assessing the effectiveness of the Authority to the Board, TWC, and the Authority on or before March 31 of each even-numbered year, assessing the

effect on downstream water rights as a result of aquifer management and any other pertinent matters.

Water use and regulation. Regulation of the withdrawal of water from the aquifer would be required to allow for credit to be given for the water's certified reuse. To receive this credit, the Authority or local underground water conservation district would need to certify the lawful use and reuse of the water, the amount of aquifer water used, and the amount of aquifer withdrawals replaced by reuse. Water withdrawn from the aquifer and returned to a water course by a user with a wastewater discharge permit would be appropriated to the discharging user for reuse if the reuse was certified by the Authority or local underground water conservation district, the reuse replaced water that would otherwise have been withdrawn from the aquifer, and the reuse was for municipal, industrial or domestic livestock purposes.

Management of water use from the aquifer would be designed to:

- protect species designated as threatened or endangered under federal law;
- protect the quality of water entering the aquifer;
- protect the water quality of discharges to surface streams which are fed by the aquifer;
- maximize the water available for withdrawal from the aquifer; and
- achieve water conservation.

The Authority could not allow withdrawals from the aquifer through wells drilled after June 1, 1993, except for additional water provided on an interruptible basis as determined by the Authority in consultation with state and federal agencies. For the period ending December 31, 2007, the amount of withdrawals from the aquifer should not exceed 450,000 acre-feet per year. Beginning January 1, 2008, withdrawals should not exceed 400,000 acre-feet per year.

If the level of water in the aquifer, as measured at well J-17, reached 665 feet or greater above sea level, the Authority could authorize interruptible withdrawal from the San Antonio pool. If the level of water in the aquifer, as measured at well J-27, was at or greater than 865 feet above sea level, the Authority could authorize interruptible withdrawal from

the Uvalde pool. The Authority could define other pools within the aquifer and establish index wells to monitor the level of the aquifer to aid the regulation of withdrawals from the pools.

By June 1, 1994, the Authority would be required to implement and enforce water management practices, procedures, and methods to ensure that by December 31, 2012, the continuous minimum springflows of the Comal Springs and San Marcos Springs are maintained to protect endangered and threatened species. To meet this requirement, the Authority could require phased reductions in the amount of water withdrawn by existing users or implement alternative management practices, procedures, and methods. The Authority would be required to prepare and implement a plan for reducing the targeted annual volume of water to be withdrawn to 400,000 acre-feet per year or an adjusted amount determined by the Authority in consultation with state and federal agencies.

Loans and grants. The Authority would be eligible to receive loans from the Texas Water Development Board under the agricultural water conservation bond program and also could solicit gifts, grants, and other assistance from any source.

The Authority could issue grants or make loans to finance the purchase or installation of equipment or facilities with a demonstrated cost benefit equal to the replacement cost of the water conserved or made available by the project.

Comprehensive management plan. By September 1, 1995, the Authority would develop a comprehensive water management plan including conservation, future supply and demand management plans. The Authority could delegate the development of the plan to an underground water district if the district has the statutory powers necessary for full enforcement of all rules and order delegated and has implemented all rules and policies necessary to fully implement the program to be delegated.

The Council, in conjunction with the Water Development Board and underground water conservation districts within the Authority's boundaries, would be required to develop a 20-year plan for providing alternative supplies of water to the region, with five-year goals and objectives to be

implemented by the Authority and reviewed annually. In developing this plan, the Council would make a thorough investigation of all alternative technologies, provide financial assistance for alternative supplies through the Water Development Board, and perform a cost-benefit analysis and an environmental analysis.

Critical Period Management Plan. By September 1, 1995, the Authority would be required to prepare and implement a plan for critical period management, including distinguishing between discretionary use and nondiscretionary use, requiring reductions of all discretionary use, requiring utility pricing to limit discretionary use by its customers, and requiring reduction of nondiscretionary use, in the order delineated in the bill.

Measuring devices. Nonexempt well owners withdrawing water from the aquifer would be required to install and maintain measuring devices to indicate the flow rate and cumulative amount of water withdrawn by that well. This requirement could be waived by the Authority upon written request by a well owner to use an alternative method of determining the amount of water used. The Authority would bear all costs of purchasing, installing and maintaining the devices for irrigation wells in existence on September 1, 1993. Each well owner would be required to file a written report of water use on March 1 of each year. Wells producing 25,000 gallons of water per day or less used for domestic or livestock use would be exempt from metering requirements but would have to register with the Authority or a local underground water conservation district.

Water transfer. Water withdrawn from the aquifer would have to be used within the boundaries of the Authority, and a well owner could not lease more than 50 percent of the annual quantity of water used from the well.

Violations. Violations could result in an administrative penalties between \$100 and \$1,00 per violation per day. The Authority would be required to give written notice of the penalty and the reason for its assessment. Alleged violators could request an informal review by the Authority. After the informal review, the violator could request a hearing. If still dissatisfied, the violator could file a petition for judicial review contesting the violation or the amount of the penalty. The Authority could contest this

petition. Judicial review would be conducted under the substantial evidence rule.

The Authority could also file a civil action for a penalty against violators of between \$100 and \$10,000 per violation per day and for an injunction.

Edwards Underground Water District. The Edwards Underground Water District would have all of the powers of a Chapter 52 underground water conservation district, with board of director elections to be held on the first Saturday in May rather than the third Saturday in January.

Underground water conservation districts could manage and control water that is part of the aquifer as long as the activities did not conflict with the powers of the Authority. The Authority could delegate its powers to underground water conservation districts if the district had statutory powers necessary for full enforcement of the rules and orders to be delegated and the district had implemented all rules and policies necessary to fully implement the programs to be delegated. The Authority would retain oversight and could revoke delegation of its powers.

Uvalde Underground Water Conservation District. CSHB 1216 would validate the creation of the Uvalde County Underground Water Conservation District and all acts of its board of directors. The district's boundaries would be identical to those of Uvalde County.

The district could develop and implement a drought response plan using water levels observed in the Uvalde Index Well YP-69-50-302. The district could not levy a maintenance and operating tax exceeding two cents per \$100 assessed valuation without authorization of district voters in an election. This bill would not affect litigation pending on the effective date of the Act.

Legislative Natural Resources Board. The LNRB would be authorized to oversee and review the implementation of federal environmental programs delegated to the state as well as compliance with the Administrative Procedure and Texas Register Act. The board could receive grants, appropriations, or property from any source and could contract with state or federal agencies to support the implementation of legislative natural

resource policy. The board would not be required to terminate its activities on January 1, 1994, as in current law.

CSSB 1477 would amend Water Code sec. 33.014 to remove provisions requiring licensed installers install and repair pumps in accordance with Commission standards.

Effective Date. This bill would take effect September 1, 1993, except for the prohibition on aquifer water withdrawal, which would take effect March 1, 1994.

**SUPPORTERS
SAY:**

CSSB 1477 would meet the federal court's order to manage withdrawal from the Edwards Aquifer to protect endangered species while addressing the concerns of all parties affected by regulations on aquifer usage. By providing for a combination of regional and local control, coupled with pumping limits, this bill would meet the judge's standards and would prevent federal takeover of the aquifer. Also, by providing for management and critical period plans, CSSB 1477 would prove to the USFWS that the state is serious about protecting endangered species and should be granted an "incidental takings" permit.

By providing for the creation of several Chapter 52 UWCD's within the region, CSSB 1477 attempts to comply with the traditionally used method of water regulation in the state. Historically, the state has dealt with water distribution issues by allowing UWCDs to regulate the water on the local level. CSSB 1477 would extend this practice into the Edwards aquifer region, allowing local citizens to decide how best to regulate their portion of the aquifer to meet their needs.

Pumping limits. CSSB 1477 would establish pumping limits for the region of no more than 450,000 acre feet and eventually 400,000 acre-feet per year. This limit is reasonable and should be acceptable to Judge Bunton; U.S. Secretary of the Interior Bruce Babbitt specifically referred to these goals during a recent communication. The imposition of any pumping level would be completely arbitrary since no one knows exactly how much pumpage can occur to maintain springflow. CSSB 1477 would simply reflect the most educated guesses, based on average annual use over the last 10 years. Moreover, because it is difficult to attain an exact

pumpage level, language in this bill concerning limitations would not be fixed, to allow for slight overusages.

Landowners would not have to be compensated for "takings" of the water underlying their property. Chapter 52 districts already have the power to regulate water without owner reimbursement; the provisions of CSSB 1477 would be no different. In *Lucas v. South Carolina Coastal Council*, the U.S. Supreme Court clearly stated that the state can regulate private property without payment unless property owners can demonstrate that their use of the land is being deprived. By this reasoning, the state can restrict water usage without making reparations to every landowner.

By leaving the specifics of implementation to the Authority and local UWCDs, the bill would ensure that water use is determined by local entities that are most familiar with water usage patterns and regional needs. CSSB 1477 would not specifically prohibit permits, but simply leaves the decision whether to permit to the Authority.

Deadlines. The deadlines established by CSSB 1477 are meant to give each regulatory body enough time to fully consider their proposals. Neither the state nor the aquifer would benefit from a management plan whose implications was not completely considered before it was implemented. For an issue with widespread ramifications, two years is not an inappropriate length of time to spend in deliberations. Although springflow would not have to be regulated until 2012, the management practices intended to protect springflow would have to be in place by June 1994.

Discharge credits. Discharge and reuse credits are intended to reward aquifer users who are taking measures to conserve or recharge aquifer water. If an individual discharges 50 feet of water over the recharge zone, the aquifer would directly realize the benefit of this additional water. Because of this, users taking measures to protect aquifer water levels should realize the benefits of their actions.

Definitions. Many of the definitions included in the bill are from the common usages and are already codified in Water Code Chapter 52. To avoid duplication these definitions have not been included in this bill.

River diversions and aquifer augmentation. By permitting the Authority to divert a portion of the Guadalupe River to augment recharge or springflow, CSSB 1477 would be taking advantage recent scientific advancements that enhance the ability to remove water that has already left the aquifer and returning it to the source for system-wide recycling. Because diversion only removes a portion of the water from the stream, no state approval should be required for this action.

The Edwards Aquifer Authority. The makeup of the Authority's board is reasonable and is intended to reflect the interests of the aquifer *users*, not the area population or regional concerns. Agricultural and downstream interests are fully represented on the Council, which would give them the capability to oversee all of Authority actions without specifically becoming members.

Although the Authority would be required to relinquish its powers to UWCDs that request control, the Authority would set the initial guidelines to which each District would have to adhere and the power of any District that fails to meet these standards could be revoked by the Authority.

Fees. The collection of fees is the only available manner for supporting the Authority's activities because the state Constitution prohibits entities from collecting taxes unless they are governed by an elected body. CSSB 1477 would establish the Authority as an appointed body to ensure that no one metropolitan area or interest has control over the Board's activities.

Regional South Central Texas Water Council. The Council would be given specific power to control Authority actions because the Council would have a broader membership and could represent all of the interests involved in regional water usage. By giving the Council the ability to appeal Authority decisions to the Water Commission, CSSB 1477 would ensure that mediation is available when there is a difference of opinion.

Boundaries. Because Guadalupe and Caldwell counties are extremely reliant upon aquifer resources, they should be included. CSSB 1477 clearly states that water transfers can only occur within the limits of the regional authority's jurisdiction. Without including these two counties, CSSB 1477 would be cutting off one of their only sources of water. Kinney County

should not be included because it has only a minimal number of wells pumping water from the aquifer with a negligible effect on the water.

Transfer of authority. The Authority could not possibly transfer the entirety of its power to one Chapter 52 UWCD. Under its enabling legislation, each individual district only has control within its stated boundaries. In order for one UWCD to control the entire region, the legislature would be required to remove its jurisdictional limitations.

Edwards Underground Water Conservation District. CSSB 1477 would enhance the authority of the Edwards District by giving it all of the powers of a Chapter 52 district. Not only would this provision give the District express permission to issue rules and regulations and have certain authority to regulate pumping, it would also put the District on equal footing with Medina and Uvalde UWCD. CSSB 1477 would also give the Edwards District a sufficient level of power so that the Authority could pass on some of its regulatory powers to this local entity.

The coexistence of the Edwards District and the Authority would not result in a duplication of efforts. Each entity would have its own responsibilities. Even though the districts charge an ad valorem tax and the Authority would collect a fee, area residents would not be overcharged for the services; these efforts would be required regardless of who is providing them, and the charge would be approximately the same.

Uvalde County validation. Uvalde County Underground Water Conservation district was approved by a majority of the voters of Uvalde County and the Uvalde County Commissioners Court. The bill would simply validate these actions. Because a 1989 attorney general's ruling raises questions about how the district was created, legislature approval is needed. All TWC rules regarding standard UWCDs would govern the district.

Confirming the Uvalde UWCD would allow the district to protect its portion of the aquifer from pollution and waste by permitting the interests of the district to be represented in future negotiations for a regional plan. In the past, Uvalde County has been hesitant to participate in regional management negotiations because of the perceived bias in the Edwards

district against rural and local interests. Uvalde County is demonstrating its willingness to participate in negotiations focusing on a local resolution to the aquifer situation.

**OPPONENTS
SAY:**

CSSB 1477 is wholly inadequate to meet the requirements of Judge Bunton's order to limit pumping from the Edwards Aquifer to protect endangered species, and its enactment would likely result in federal intervention and the loss of billions of dollars in federal funds. Judge Bunton has indicated that he will be looking for a clear intent to protect endangered species. Yet CSSB 1477 only mentions the need to protect endangered species in passing and focuses primarily on private property rights. CSSB 1477 would not mandate that a management plan be operational until 2012 and does not provide for interim oversight. This bill also would not meet the U.S. Fish and Wildlife's requirements to obtain an "incidental take" permit. Before an "incidental take" permit would be authorized by USFWS, the state would have to show that it had in place a plan that would not jeopardize the continued existence of the species; CSSB 1477 would not sufficiently satisfy these requirements.

Because the Edwards Aquifer underlies an entire *region* of the state, it should be treated as a regional body and should not be broken down into individual sections that would be independently regulated.

Pumping limits. The pumping limit established by CSSB 1477 would not be mandatory but instead would set a target for the Authority to try to meet. By leaving the language of the bill vague, CSSB 1477 would be opening the door for the Authority and the UWCD's to fail to achieve this goal. Moreover, it is unclear which entity has the power to issue permits at all. If the state is serious about setting a limit and avoiding federal intervention, CSSB 1477 should set a strict ceiling on the amount of water that can be withdrawn from the aquifer.

This bill sets a pumping limit goal of 450,000 acre feet but does not give any specific details regarding how to reach this. Simply giving the Authority the general ability to regulate pumping would not be sufficient. CSSB 1477 should specify that a permitting system be used to reassure everyone involved that they have a certain amount of aquifer water set

aside for their use. Without a specific delegation of permitting power, CSSB 1477 could result in years of litigation.

CSSB 1477 should only set specific pumping limits in the urban areas and should not mandate how much water could be used in the agricultural sections of the region. Unlike cities that potentially have other sources of water, limiting the amount of water that is available to farmers could effectively destroy the economy of the region. Rather than restrict water availability, CSSB 1477 should either mandate that farmers use the most up-to-date irrigation and conservation technology or should ensure that farmers will always have a sufficient water to continue operating.

Landowners would have to be reimbursed for any limitations that the state places on pumpage from a well, because aquifer water would remain under private ownership. This means that in order to attain the goal of withdrawal of 450,000 acre feet per year, someone would have to reimburse landowners up to \$900,000. CSSB 1477 does not clearly state who would be responsible for paying these costs.

Deadlines. The deadlines set by this bill would create problems. First, although the bill's effective date is September 1, 1993, pumping restrictions could not be enforced until March 1, 1994, essentially giving water users an extra six months to withdraw water at will. Secondly, springflow would not be required to be fully protected until 2012, a full 20 years from enactment of this act, and the comprehensive and critical management plans would not be due until June, 1995.

Discharge credits. By permitting water credits for water lawfully discharged, CSSB 1477 would essentially be doubling the water rights of certain users. Under this bill, if a well-owner had a permit allowing withdrawal of 100 acre-feet, 60 feet of which is discharged into a nearby stream, that person's permit for next year would allow withdrawal of 160 acre-feet — basically rewarding someone for wasting water. Credits should only be given to those entities actually capturing the water and using it over again.

Definitions. CSSB 1477 contains a number of terms that are not adequately defined. For example, the term "existing user" would not provide adequate protection against 'double dipping,' or giving water purchasers the same water rights as well owners. "Livestock" would be given a broad meaning that would include all types of enterprises, including large fish or poultry farms. In addition, the definition for "waste" has been completely removed from the Senate version of the bill, potentially opening the door for certain users to take advantage of discharge credits.

River diversions. CSSB 1477 would give the Authority the power to divert water from the Guadalupe River without state or federal permission, which would be an invitation to another lawsuit.

The Edwards Aquifer Authority. Section 1.33 of the bill would allow Chapter 52 underground water conservation districts to completely strip the Authority of its powers upon the request of the district, leaving the Authority no recourse and no clear method of regulating water use.

The make-up of the board is not sufficient to ensure that regional and local interests are fully represented. To make this bill more palatable to several interests that are not fully represented, CSSB 1477 should either balance the membership with three representatives from the rural counties, three from Bexar County, and three from downstream counties or the bill should provide for members to be chosen through an elective process.

CSSB 1477 does not clearly distinguish between the powers of the Authority and the UWCDs. If this bill intends for the regional Authority to have sufficient power to regulate pumpage, CSSB 1477 should clearly spell this out. By not stating its intentions, CSSB 1477 could be creating potential friction between districts and the Authority.

Fees. The regional Authority should not be funded by fees but should impose an equitable ad valorem tax upon the entire region, assuring that all users are paying for their fair share of the cost of regulating the aquifer. Charging farmers \$2 or 20 percent per acre-foot is unreasonable and should be raised to truly reflect the value of the water they are withdrawing.

Regional South Central Texas Water Council. The Council has too much authority under this bill and should not be allowed to control the actions of the Authority through an interim report. Also, the Council should not be authorized to seek Water Commission review of rules issued by the regional Authority. Because water management is a local issue, the state should not have the right to interfere and overturn agreed-upon standards.

Boundaries. The boundaries identified in this bill fail to include all areas of the aquifer, specifically excluding Kinney County, which includes a significant portion of the aquifer's artesian and recharge zones. Moreover, Guadalupe and Caldwell counties are included even though they are not directly over the aquifer.

Transfer of authority. By allowing the Authority to transfer its power to a local Chapter 52 Underground Water Conservation District, CSSB 1477 could be interpreted as giving the Authority the capability of handing over all of its regional power to one District, giving that one UWCD the ability to regulate water use throughout the region.

Edwards Underground Water Conservation District. By allowing the Edwards District to continue to exist, CSSB 1477 is simply creating another level of bureaucracy and confusion concerning the powers of the different entities involved in regulating the aquifer. This duplication of services would not be particularly beneficial to the public, simply driving up the cost of water use. Edwards already charges an ad valorem tax to cover its costs, and CSSB 1477 would create an additional user's fee that each resident would have to pay as well.

Uvalde County validation. This district does not legally exist because it was not created according to law. The 1989 attorney general opinion confirmed that the Water Commission is the only governmental body with jurisdiction over the creation of a UWCD. In 1973, HB 935 gave the Water Commission exclusive authority to create a district and removed that authority from the local commissioners court. By these standards, the bill should not *validate* a district that does not legally exist, but instead should *create* the Uvalde UWCD.

NOTES:

The committee substitute would amend the Senate version by specifically recognizing the individual ownership of underground water and requiring that landowners be reimbursed for any "taking" of their private property. The Senate version did not provide for the Water Commission continuing supervision and would give the Authority the right only to control water within the aquifer formation. The Senate version would create a three-tier system of oversight with the Authority, a 13-county downstream Advisory Committee, and a six county "area representatives" group. The substitute does not contain any language specifically addressing permit criteria and provides for legislative oversight. The Senate bill would only allow reuse with permits and require that the Authority develop and implement a Comprehensive Management plan in conjunction with the Water Development Board. The committee substitute would allow the Authority to delegate the development of the plan to local water districts, does not provide for the specific use of revenue bonds, and removes the requirement of a permit for water diversion downstream from the springs. The Senate version would have terminated the Edwards Underground Water District.

SUBJECT: Management of the Edwards Aquifer

COMMITTEE: Natural Resources — favorable, committee substitute recommended

VOTE: (On committee substitute for SB 1477 — see NOTES):

9 ayes — Counts, Harris, Combs, Greenberg, Hochberg, Lewis, Puente, Turner, Yost

2 nays — Bosse, Nieto

SENATE VOTE: On final passage, May 11 — 29-2 (Bivins, Sims)

WITNESSES: For — None

Against — None

On — Rodney Reagan; Maurice Rimkus; James Kowis, Texas Water Commission

BACKGROUND: The Edwards Aquifer is a waterbearing limestone formation encompassing nearly 8,000 square miles and including all or part of 13 south-central Texas counties. The term "Edwards Aquifer" usually refers to the recharge and artesian portions of the aquifer, which have a combined area of about 3,600 square miles and span approximately 180 miles from west to east. The Edwards Aquifer serves as a water source for areas surrounding San Antonio, New Braunfels, San Marcos, Hondo, Castroville and Uvalde.

Estimates of water volume in the aquifer range from 15 to 30 million acre-feet. An acre-foot equals 325,851 gallons of water and is enough for a family of five for one year. The aquifer region includes three distinct segments — the Drainage Area (Edwards, Real, Kerr, Kendall and parts of Bexar, Comal and Hays counties), the Recharge Area (part of Kinney, Uvalde, Medina, Bexar, Comal and Hays counties), and the Artesian/Reservoir Area, which is where vast amounts of groundwater are stored and underlies Kinney, Uvalde, Medina, Bexar, Comal and Hays counties.

Water cannot seep straight down into the artesian area from the surface due to impermeable layers such as clays between the surface and the aquifer. In certain places where there is enough artesian pressure, some of the water is forced to the surface through geologic faults, also known as springs. (Comal Springs and San Marcos Springs flow from the aquifer and are tributaries of the Guadalupe River.)

Flowing wells are also the result of artesian pressure. Water leaving the aquifer is referred to as discharge and occurs either naturally by springs or through flowing and pumped wells.

The Texas Water Development Board estimates that at current consumption levels, demand for water in this region could exceed 850,000 acre-feet per year by the year 2020. According to the U.S. Geological Survey, average annual recharge to the aquifer is 636,800 acre-feet. Total discharge, from wells and springs, in 1990 was 730,000 acre-feet.

Aquifer history. From 1950-1956, Texas experienced a record draught, causing Comal Springs in New Braunfels to go dry for five months and reducing the flow of San Marcos Springs to 46 cubic feet per second (cfs) at the drought's peak in 1956. In response, the Edwards Underground Water District (EUWD) was legislatively created in 1959 to conserve, protect and recharge the groundwater in the five counties known as the Edwards Aquifer region. The district, governed by a 12-member board elected by popular vote within the counties, issued the first rules regulating development over the Edwards recharge zone, including restricted zones and rules on waste disposal, in 1970.

Several "mini-droughts" have occurred since 1956. In 1988 the Edwards Underground Water District established a Drought Management Plan, with user requirements. In January 1989 Medina and Uvalde Counties withdrew from the district and attempted to establish single county underground water districts. The Medina County Underground Water District was approved during the 72nd Legislature's regular session. The Uvalde District failed to win approval during that session, but HB 1216 by Nieto, which has passed the House, would validate the district.

In April 1992 TWC declared the Edwards Aquifer an "underground river" and, as such, found the water to be the property of the state and subject to commission regulation. The commission immediately adopted emergency rules and a moratorium on new wells.

In August 1992 TWC and U.S. Fish and Wildlife Service (USFWS) announced an agreement on a management plan for the Edwards as a basis for an "incidental take" permit under the federal Endangered Species Act. "Incidental take" permits are granted by USFWS to authorize the accidental "taking" of an endangered species only if the entity involved has taken sufficient actions to guarantee that continued existence of the species will not be jeopardized. TWC adopted final Edwards rules to limit pumping and required permits based on historic use, continuing a moratorium on new wells. On September 11, a state court invalidated the TWC rules (*Texas Farm Bureau, Cattleranchers Association, et al. v the Texas Water Commission*). This case is being appealed.

In May 1991 the Sierra Club filed a lawsuit against the USFWS (now styled *Sierra Club v. Babbitt*) based on the federal Endangered Species Act, which mandates the protection of endangered species and their habitat. The suit asked the USFWS to ensure minimum spring flow in the Edwards Aquifer to protect endangered species that could be affected by aquifer flow. On January 30, 1993, U.S. District Judge Lucius Bunton ruled in favor of the Sierra Club and ordered that springflow must be maintained, the TWC must submit a plan to the court by March 1, 1993, to assure that Comal and San Marcos Springs will not drop below jeopardy levels and that the Legislature must enact a regulatory system to limit withdrawals from the Edwards Aquifer by May 31, 1993.

Underground Water Conservation Districts. Underground water conservation districts (UWCDs), generally governed by Chapter 52 of the Water Code, have the authority to regulate spacing and production of water wells to minimize the decline of the water table and related problems. They may also issue drilling permits for wells expected to pump more than 25,000 gallons per day and construct dams to create lakes. The districts may issue bonds and levy taxes approved by a majority of a district's voters and have rule-making authority. Chapter 52 UWCDs are governed by, at minimum, a five-member board of directors, four selected from

county commissioner precincts to serve four-year terms and one at-large member. Larger districts, usually encompassing more than one county, may have up to nine directors. TWC supervises the districts under an extensive set of regulations.

DIGEST:

SB 1477 would create the Edwards Aquifer Authority, the Edwards Aquifer Area Advisory Committee and a commission made up of area representatives and would provide for the regulation of water withdrawn from the aquifer.

Edwards Aquifer Authority. The Edwards Aquifer Authority would have the power to regulate underground water within the boundaries of the aquifer, as described in the bill. The authority would be charged with all of the power provided to a local government to prevent pollution and enforce water quality standards within its jurisdiction and a buffer zone including all areas less than 10 miles outside the authority's boundaries. The authority could hold permits under state law or the federal Endangered Species Act and could execute contracts.

SB 1477 would give the authority express permission to enter a contract with an aquifer water user for the construction, operation, financing and maintenance of water supply facilities. The authority could not charge any management or special fees for the operation of these facilities. The authority would also have the power of eminent domain, except for the acquisition of rights to underground water, and could close abandoned, wasteful or dangerous wells.

The authority would have a nine-member board of directors, including:

- three residents of Bexar County, two of which are appointed by the city of San Antonio, and one appointed by the Bexar County Commissioner's Court;
- one resident of Comal County or the city of New Braunfels;
- one resident of Hays County appointed by the city of San Marcos;
- one resident of Medina County appointed by the Medina Underground Water Conservation District;
- one resident of Uvalde County appointed by the Uvalde Underground Water Conservation District; and

- one person appointed in rotation by the Bexar County Commissioners Court who is an active operator engaged in irrigated agriculture with a resident of Atascosa County appointed by the Evergreen Underground Water Conservation District;
- one member appointed in rotation to represent Guadalupe, Hays, or Comal County.

The initial directors would draw lots to determine their terms, with four serving terms expiring June 1, 1995, and five serving terms that would expire June 1, 1997. Subsequent directors would serve staggered four-year terms. Acts of the board would be valid only if adopted by vote of a majority of the members. Members would not receive any compensation but could be reimbursed for actual and necessary expenses incurred.

The authority could hire an executive director and other employees to assist with the administration of this act.

Permitting. Under SB 1477, water could not be withdrawn from the aquifer without a permit. The authority would have the power to regulate permits, manage all well construction and withdrawal from the aquifer and take action to ensure compliance with all permitting, metering, and reporting requirements. The authority could issue regular, term and emergency permits specifying the maximum rate and total volume of water that the user could withdraw during the calendar year.

Existing users could apply for an initial regular permit by filing a declaration of historical use by March 1, 1994, for water withdrawn from the aquifer during the period June 1, 1982, through May 31, 1993. The authority board would grant an initial regular permit to users who file the declaration and establish beneficial use of underground aquifer water. The authority would then issue a permit for withdrawal of the amount of water equal to the user's maximum beneficial use of water without waste during any one calendar year of the historical period. If the total amount of water to be permitted exceeded the amount available for permitting, the authority would adjust the amount proportionately to meet the amount available for permitting.

Existing irrigators would receive permits for at least two acre-feet per year for each acre of land irrigated, and existing users who had operated a well for three or more years during the historical period would receive a permit for at least the average amount of water withdrawn annually during the historical period. Initial regular permits remain in effect until it is abandoned, cancelled or retired.

Anyone owning a producing well could continue to withdraw and beneficially use water without waste until final authority action on a permit if the well is in compliance with all well construction and operation rules and a declaration of historical use was filed by March 1, 1994. Interim use could not exceed the historical maximum beneficial use of water without waste, as evidenced by the person's declaration of historical use, unless another amount was determined by the authority. Interim authorization would end upon entry of a final decision of the authority on the application for the well or by March 1, 1994, if the well owner failed to file a declaration of historical use.

Additional regular permits could be issued on the basis of availability after all existing user permits have been issued. The authority could not take action on applications for use relating to existing or proposed wells with no evidence of actual beneficial use before June 1, 1993, until a final determination was made on all initial regular permit applications submitted by the initial application date of March 1, 1994.

The authority could also issue term permits for withdrawal for any period up to 10 years in length. Term permit holders could not withdrawn water from the San Antonio or Uvalde pool unless the aquifer level was at certain points. Emergency permits would be issued only to prevent the loss of life or to prevent severe imminent threats to public health or safety and could not exceed 30 days in length. Emergency permit holders could withdraw water from the aquifer without regard to its effect on other permit holders.

Permit application fees could not exceed \$25. The authority could assess a surcharge fee to be imposed on a permittee's withdrawal of water in excess of permitted amounts. Wells producing 25,000 gallons of water per day or less used for domestic or open-range watering of livestock would be

exempt from permit requirements but would have to register with the authority or a local underground water conservation district.

Permit retirement. The authority would be required to prepare and implement a plan by January 1, 2008, for reducing the maximum annual volume of water authorized to be withdrawn under regular permits to 400,000 acre-feet per year. The plan would have to include provisions for water conservation and reuse, retirement of water rights, and other water management measures designed to achieve the reduction levels necessary. If the volume of water withdrawn from the aquifer exceeds 400,000 on January 1, 2008, the maximum authorized withdrawal of each regular permit would be immediately reduced by an equal percentage as necessary to reduce overall maximum demand to the necessary level.

Conservation and reuse plans. Regular and term permit holders would be required to submit water conservation plans and reuse plans for authority review and approval. These plans would be updated biennially and submitted to the Legislature by January 1 of each odd-numbered year.

Withdrawals. Withdrawal authorizations would only be made if in accordance with the purposes of:

- protecting the water quality of the aquifer;
- protecting the water quality of the surface streams to which the aquifer provides springflow;
- achieving water conservation;
- maximizing the beneficial use of water available for withdrawal from the aquifer;
- protecting aquatic and wildlife habitat;
- protecting species that are designated as threatened or endangered under applicable federal or state law; and
- providing for instream uses, bays and estuaries.

For the period ending December 31, 2007, withdrawals from the aquifer could not exceed 450,000 acre-feet per year. Beginning January 1, 2008, withdrawals could not exceed 400,000 acre-feet per year. The authority, in consultation with federal and state agencies, could increase or decrease pumping limits based upon the availability of water.

If the level of water in the aquifer, as measured at well J-17, reached 665 feet or greater above sea level, the authority could authorize interruptible withdrawal from the San Antonio pool. If the level of water in the aquifer, as measured at well J-27, was at or greater than 865 feet above sea level, the authority could authorize interruptible withdrawal from the Uvalde pool. The authority could define other pools within the aquifer and establish index wells to monitor the level of the aquifer to aid the regulation of withdrawals from the pools.

By June 1, 1994, the authority would be required to implement and enforce water management practices, procedures and methods to ensure that by December 31, 2012, the continuous minimum springflows of the Comal Springs and San Marcos Springs are maintained to protect endangered and threatened species. To meet this requirement, the authority could require phased reductions in the amount of water withdrawn by existing users or implement alternative management practices, procedures and methods.

Withdrawal fees. The cost of reducing withdrawals to 450,000 acre feet per year would be borne by aquifer users and additional costs for the reduction to 400,000 acre-feet per year would be borne equally by aquifer users and downstream water rights holders for the period beginning January 1, 2008.

The authority would assess equitable special fees based on permitted aquifer rights to be used to finance the retirement of rights. These fees would be set at a level to match the funds raised from the special fees charged to downstream water rights holders. Special fees would also be assessed on all downstream water rights holders in the Guadalupe River Basin to finance the retirement of aquifer rights necessary to meet the goals of this bill. The amount of the special fees for downstream water rights holders would be determined in accordance with rules adopted by the Water Commission for fees under the South Texas watermaster program. Special fees could not be assessed on contractual deliveries of water stored in Canyon Lake or on hydroelectric water usage at the dams listed in the bill. Anyone making a contractual sale of water stored upstream of Canyon Dam could not establish rates requiring purchasers to pay the special fee.

The authority could establish different fee rates on a per acre-foot basis for different types of uses. However, the fee rate for agricultural use could not be more than 20 percent of the fee rate for municipal use.

Measuring devices. Nonexempt well owners withdrawing water from the aquifer would be required to install and maintain measuring devices to indicate the flow rate and cumulative amount of water withdrawn by that well. This requirement could be waived by the authority upon written request by a well owner to use an alternative method of determining the amount of water used. The authority would bear all costs of purchasing, installing and maintaining the devices for irrigation wells in existence on September 1, 1993. Each well owner would be required to file a written report of water use on March 1 of each year.

Comprehensive management plan. By September 1, 1995, the authority would develop a comprehensive water management plan including conservation, future supply and demand management plans.

In conjunction with the Water Development Board and underground water conservation districts within the authority's boundaries, the authority would be required to develop a 20-year plan for providing alternative supplies of water to the region, with five-year goals and objectives to be implemented by the authority and reviewed annually. In developing this plan, the authority would make a thorough investigation of all alternative technologies, provide financial assistance for alternative supplies through the Water Development Board, and perform a cost-benefit analysis and an environmental analysis.

Demand management plan. The authority would be required to prepare and implement a plan for demand management, with commission review, including distinguishing between discretionary use and nondiscretionary use, requiring reductions of all discretionary use, and requiring reduction of nondiscretionary use, in the order delineated in the bill.

Water transfer. Water withdrawn from the aquifer would have to be used within the boundaries of the authority, and permit holders only be allowed to sell water to the authority. Irrigation permit holders could sell up to

50 percent of their initial irrigation rights with the remaining irrigation water rights used in accordance with the original permit.

Acquisition of water rights. The authority could acquire permitted rights to use water from the aquifer to:

- hold in trust for sale or transfer to another water user within the authority's jurisdiction;
- hold in trust to manage overall aquifer demand;
- hold for resale or retirement as a means of complying with pumping reduction requirements; or
- retire the rights.

The acquisition of permitted rights to use water from the aquifer is eligible for financial assistance from the water supply account of the Texas Water Development Fund, the water loan assistance fund and the revenue bond program.

Revenue bonds. The authority could not levy a property tax but could issue revenue bonds to finance the purchase of land or facilities and equipment for the purposes of water conservation, reuse, management or the development, storage, pumping, treatment, transportation or wholesale distribution of ground or surface water from outside, except for Medina and Uvalde counties, for use within the authority. Revenue bond proceeds could be used for developing alternative water supplies, financing retirement of water rights, or for providing additional assistance for research or conservation. Bonds issued would be subject to review and approval of the attorney general and the water commission.

River diversion. The commission could issue a special permit to divert water from the Guadalupe River from a diversion point on the river downstream of the point where the river emerges as a spring. Permits issued would condition the diversion of water on a limitation of withdrawals under the permit to withdraw water from the aquifer. Permits would only be issued if the diversion is made instead of withdrawal from the aquifer to enhance aquifer yield and the diversion does not impair senior water rights or vested riparian rights.

Research, grants and loans. The authority would complete research by September 1, 1993, on the technological feasibility of springflow and yield enhancement to help manage water resources, including water conservation, use and drought management measures, enhance the recharge, augment springflow in and out of the aquifer, develop alternative water supplies, and monitor and protect water quality.

The authority could issue or administer grants, loans or other financial assistance to water users for conservation and reuse and would require the beneficiary to transfer permitted rights to aquifer water equal to a portion of the water conserved or made available by the project.

The authority would also be eligible for loans from the Texas Water Development Board under the agricultural water conservation bond program and could solicit gifts, grants, and other forms of assistance.

Enforcement. The authority could issue orders to enforce the terms and conditions of permits, orders or rules adopted.

Sunset review. The authority would be subject to sunset review as if it were to be abolished September 1, 2005. However, the authority could not be abolished under the Texas Sunset Act. Unless board members were continued in office after the review, their membership would expire at that time and a new board of directors would be appointed.

Area representatives. The commissioners courts of Atascosa, Comal, Guadalupe, Hays, Medina, and Uvalde would each appoint one area representative along with one representative of Bexar County appointed by the City of San Antonio. In counties with an underground water conservation district, the general manager would serve as the county representative. Area representatives would assist the authority in developing and implementing a demand management plan for each representative's county.

Advisory committee on downstream rights. The Edwards Aquifer Area Advisory Committee would advise the authority board of directors on all downstream water rights and issues. The committee would be made up of one member appointed by each municipality with a population of 50,000 or

more and representatives of Atascosa, Caldwell, Calhoun, DeWitt, Goliad, Gonzales, Guadalupe and Karnes counties.

Advisory committee members could participate in authority board meetings to represent downstream water supply concerns and assist in preparing solutions. The authority would be required to include each Committee member in the communications extended to each board member. The committee could request the authority to reconsider an action that was considered prejudicial to regional water interests. If the authority failed to return a satisfactory resolution, the committee could request that the commission review the action and make a recommendation to the board.

Edwards Underground Water District. The Edwards Underground Water District would be abolished, with all files, records, property, leases, contracts, funds, staff and rights transferred to the authority upon the effective date of this act. All rules enacted by the district would remain in effect until amended or repealed by the authority.

Uvalde Underground Water Conservation District. CSHB 1216 would validate the creation of the Uvalde County Underground Water Conservation District and all acts of its board of directors. The district's boundaries would be identical to those of Uvalde County.

The Uvalde district would have all powers provided by the general law of the state, including Water Code Chapters 50 and 52. The district could develop and implement a drought response plan using water levels observed in the Uvalde Index Well YP-69-50-302. The district could not levy a maintenance and operating tax exceeding two cents per \$100 assessed valuation without authorization of district voters in an election. This bill would not affect litigation pending on the effective date of the Act.

UWCD powers. Underground water conservation districts could continue to be created pursuant to Chapter 52 of the Water Code, and they would retain the right to manage and control water that is part of the aquifer as long as those activities do not conflict or duplicate those of the authority. Upon request of an underground water conservation district, the board would be required to delegate all or part of its powers to that district if it is demonstrated that the district has the statutory powers necessary for full

enforcement of the rules and orders to be delegated, the district has implemented all rules and policies fully to implement the programs to be delegated, and the district has implemented a system designed to provide the authority with adequate information with which to monitor the adequacy of the district's enforcement performance.

If the authority determined that a district has failed to adequately enforce or implement delegated power, the authority would immediately give notice to the district stating the actions the district must take to retain the delegated powers. If the district fails to comply, the authority would resume implementation responsibility. The board could deny a request for delegation of powers if the district has previously had a delegation terminated by the authority.

Violations. Violations could result in an administrative penalties between \$100 and \$1,000 per violation per day. In determining the amount of the penalty, the authority would consider the history of previous violations, the amount necessary to deter future violations, efforts that were made to correct the violation, enforcement costs and any other relevant matters. The authority would be required to give written notice of the penalty and the reason for its assessment. Alleged violators could request an informal review by the authority. After the informal review, the violator could request a hearing. If still dissatisfied, the violator could file a petition for judicial review contesting the violation or the amount of the penalty. The authority could contest this petition. Judicial review would be conducted in Travis County district court under the substantial evidence rule.

The authority could file a civil action for an injunction to enforce the provision of this bill, to recover a civil penalty of between \$100 and \$10,000 per violation per day and to recover reasonable attorney fees. The commission could file a civil suit for mandamus against the authority to compel it to perform its duties or to mandate enforcement against a violator. Civil penalties or attorney's fees collected by the authority would be paid to the authority with all others to be deposited to the General Revenue Fund.

Effective date. The bill would take effect September 1, 1993, except that the prohibition on aquifer water withdrawal would take effect March 1, 1994.

**SUPPORTERS
SAY:**

SB 1477 would meet the federal court's order to manage withdrawal from the Edwards Aquifer to protect endangered species while addressing the concerns of all parties affected by regulations on aquifer usage. By providing for a combination of regional and local control, coupled with pumping limits and permit requirements, the bill would meet the judge's standards and would prevent federal takeover of the aquifer. Also, by providing for demand and comprehensive management plans, SB 1477 would prove to the USFWS that the state is serious about protecting endangered species and should be granted an "incidental takings" permit.

By allowing for the creation and delegation of authority power to Chapter 52 UWCDs within the region, SB 1477 attempts to comply with the traditionally used method of water regulation in the state. Historically, the state has dealt with water distribution issues by allowing UWCDs to regulate the water on the local level. SB 1477 would extend this practice into the Edwards aquifer region, allowing local citizens to decide how best to regulate their portion of the aquifer to meet their needs.

Pumping limits. SB 1477 would establish pumping limits for the region of no more than 450,000 acre feet and eventually 400,000 acre-feet per year. This limit is reasonable and should be acceptable to Judge Bunton; U.S. Secretary of the Interior Bruce Babbitt specifically referred to these goals during a recent communication. Because the imposition of any pumping level would be completely arbitrary — since no one knows exactly how much pumpage can occur to maintain springflow — SB 1477 would give the authority the power to change these limitations if it is scientifically determined that springflow demands require modification. At this time, SB 1477 simply reflects the most educated guesses, based on average annual use over the last 10 years.

Landowners would not have to be compensated for "takings" of the water underlying their property. Chapter 52 districts already have the power to regulate water without owner reimbursement; the provisions of SB 1477 would be no different. In *Lucas v. South Carolina Coastal Council*, the

U.S. Supreme Court clearly stated that the state can regulate private property without payment unless property owners can demonstrate that their use of the land is being deprived. By this reasoning, the state can restrict water usage without making reparations to every landowner.

Irrigators would be guaranteed a minimum allocation of two acre-feet per acre, a sufficient amount of water to ensure crop survival during drought conditions since in normal rainfall years it takes only two acre-feet of water to grow one acre of irrigated grain or cotton.

Permitting. SB 1477 establishes a system of permitting that is intended to equitably apportion water rights within the constraints of the bill. By depending upon historical usage, this bill would be depending upon past water use to determine how much water could be withdrawn from any well. New wells and water users would only be given water rights after all current users are satisfied.

Deadlines. The deadlines established by SB 1477 are meant to give each regulatory body enough time to fully consider their proposals. Neither the state nor the aquifer would benefit from a management plan whose implications was not completely considered before it was implemented. For an issue with widespread ramifications, two years is not an inappropriate length of time to spend in deliberations. Although springflow would not have to be regulated until 2012, the management practices intended to protect springflow would have to be in place by June 1994.

Definitions. Many of the definitions included in the bill are from the common usages and are already codified in Water Code Chapter 52. To avoid duplication, many other definitions that can be found in other parts of the Water Code have not been included in this bill.

River diversions and aquifer augmentation. By allowing the diversion of a portion of the Guadalupe River to augment recharge or springflow, SB 1477 would be taking advantage of recent scientific advancements that enhance the ability to remove water that has already left the aquifer for private use. Any diversion of water would require an equalized reduction in pumping allowances from the diverter's well, thereby increasing the amount of water in the aquifer itself. Because diversion can have

significant downstream effects, SB 1477 requires state approval before any water can be diverted.

The Edwards Aquifer Authority. The makeup of the authority's board is reasonable and is intended to reflect the interests of the aquifer *users*, not the area population or regional concerns. Agricultural and downstream interests are fully represented on the advisory committee and through the area representatives, which would give them some measure of oversight capability regarding authority actions without overloading the board with too many members.

Although the authority would be required to relinquish its powers to UWCDs that request control, the authority would set the initial guidelines to which each district would have to adhere and the power of any district that fails to meet these standards could be revoked by the authority.

SB 1477 clearly states that although the authority is subject to sunset review before September 1, 2005, it cannot be abolished under the bill, guaranteeing that the Edwards Aquifer will continue to be managed for the benefits of regional residents until the Legislature specifically terminates the provisions of this bill.

Fees. The collection of fees is the only available manner for supporting the authority's activities because the state Constitution prohibits entities from collecting taxes unless they are governed by an elected body. SB 1477 would establish the authority as an appointed body to ensure that no one metropolitan area or interest has control over the board's activities.

Advisory committee on downstream rights. Because aquifer withdrawals have a significant impact on the water available to downstream users, SB 1477 would create the advisory committee to ensure the representation of these interests in Edwards management. In this bill, the committee would be given specific power to ask for commission review of authority decisions, ensuring that mediation is available when there is a difference of opinion between these two governing bodies.

Water marketing. Under this bill's water marketing provisions, pumping permit holders could sell up to half of their allocation, allowing farmers and

other large water users to receive income while making additional water available to other aquifer users who may need more than their permit allows.

Boundaries. Because Guadalupe and Caldwell counties are extremely reliant upon aquifer resources, they should be included. SB 1477 clearly states that water transfers can only occur within the limits of the regional authority's jurisdiction. Without including these two counties, SB 1477 would be cutting off one of their only sources of water. Kinney County should not be included because it has only a minimal number of wells pumping water from the aquifer with a negligible effect on the water.

Transfer of authority. The authority could not possibly transfer the entirety of its power to one Chapter 52 UWCD. Under its enabling legislation, each individual district only has control within its stated boundaries. In order for one UWCD to control the entire region, the Legislature would be required to remove its jurisdictional limitations.

Edwards Underground Water Conservation District. Although SB 1477 would abolish the Edwards district, it would not preclude the future creation of Chapter 52 districts in each of the region's counties. The current Edwards district encompasses too many counties and their continued existence would cause duplication of many of the authority's activities, resulting in double-taxation of area residents that would be subject to the district's ad valorem tax and the authority's fee provisions.

Uvalde County validation. Uvalde County Underground Water Conservation district was approved by a majority of the voters of Uvalde County and the Uvalde County Commissioners Court. The bill would simply validate these actions. Because a 1989 attorney general's ruling raises questions about how the district was created, legislative approval is needed. All TWC rules regarding standard UWCDs would govern the district.

Confirming the Uvalde UWCD would allow the district to protect its portion of the aquifer from pollution and waste by permitting the interests of the district to be represented in future negotiations for a regional plan. In the past, Uvalde County has been hesitant to participate in regional

management negotiations because of the perceived bias in the Edwards district against rural and local interests. Uvalde County is demonstrating its willingness to participate in negotiations focusing on a local resolution to the aquifer situation.

Enforcement. By allowing the authority to issue to enforce the terms and conditions of permits, order or rules, SB 1477 would guarantee that this regional governing body has all of the tools necessary to fully regulate the Edwards Aquifer, protecting this valuable resource and everyone who is dependent upon it.

**OPPONENTS
SAY:**

SB 1477 is inadequate to meet the requirements of Judge Bunton's order to limit pumping from the Edwards Aquifer to protect endangered species, and its enactment would likely result in federal intervention and the loss of billions of dollars in federal funds. Judge Bunton has indicated that he will be looking for a clear intent to protect endangered species. Yet SB 1477 only mentions the need to protect endangered species in passing and focuses primarily on private property rights. SB 1477 would not mandate that a management plan be operational until 2012 and does not provide for satisfactory interim oversight. This bill also would not meet the U.S. Fish and Wildlife's requirements to obtain an "incidental take" permit. Before an "incidental take" permit would be authorized by USFWS, the state would have to show that it had in place a plan that would not jeopardize the continued existence of the species; SB 1477 would not sufficiently satisfy these requirements.

At the same time, this bill is a blueprint for state control of underground water in the Edwards Aquifer, which would set a precedent that could be extended statewide. Interwoven throughout SB 1477 is the clear direction to the water commission to supervise the authority and enforce provision of this act. This would be de facto state control of underground water and contradict the Texas tradition of locally controlled water programs.

Pumping limits. SB 1477 should only set specific pumping limits in the urban areas and should not mandate how much water could be used in the agricultural sections of the region. Unlike cities, which potentially have other sources of water, limiting the amount of water that is available to farmers could effectively destroy the economy of the region. Rather than

restrict water availability, SB 1477 should either mandate that farmers use the most up-to-date irrigation and conservation technology or should ensure that farmers will always have a sufficient water to continue operating.

Landowners would have to be reimbursed for any limitations that the state places on pumpage from a well, because aquifer water would remain under private ownership. This means that in order to attain the goal of withdrawal of 450,000 acre feet per year, someone would have to reimburse landowners up to \$900,000. SB 1477 does not clearly state who would be responsible for paying these costs.

Deadlines. The deadlines set by this bill would create problems. First, although the bill's effective date is September 1, 1993, pumping restrictions could not be enforced until March 1, 1994, essentially giving water users an extra six months to withdraw water at will. Secondly, springflow would not be required to be fully protected until 2012, a full 20 years from enactment of this act, and the comprehensive and demand management plans would not be due until June, 1995.

River diversions. SB 1477 would give private entities the power to divert water from the Guadalupe River, which would be an invitation to another lawsuit to protect endangered or threatened species or habitat downstream from the diversion point. Water diversion is simply an unacceptable form of source augmentation.

The Edwards Aquifer Authority. By providing for an appointed authority board, SB 1477 would disenfranchise the residents of the region who depend upon the aquifer for water. The make-up of the board is not sufficient to ensure that regional and local interests are fully represented and could result in policies that are not palatable to regional citizens. SB 1477 should balance the membership by providing for members to be chosen through an elective process.

Section 1.33 of the bill would allow Chapter 52 underground water conservation districts to completely strip the authority of its powers upon the request of the district, leaving the authority no recourse and no clear method of regulating water use.

SB 1477 does not clearly distinguish between the powers of the authority and the UWCDs. If this bill intends for the regional authority to have sufficient power to regulate pumpage, SB 1477 should clearly spell this out. By not stating its intentions, SB 1477 could be creating potential friction between districts and the authority.

Fees. The regional authority should not be funded by fees but should impose an equitable ad valorem tax upon the entire region, assuring that all users are paying for their fair share of the cost of regulating the aquifer. Charging farmers 20 percent per acre-foot is unreasonable and should be raised to truly reflect the value of the water they are withdrawing.

Imposition of fees upon all aquifer users could asymmetrically disadvantage farmers in Medina and Uvalde counties who would not be able to compete with San Antonio if water is priced as a commodity on the open market and fees are charged to pump water. Farmers in traditionally less wealthy portions of the region do not have sufficient resources to pay for water use and therefore, would be denied the water that necessary for irrigation purposes. Traditionally in Texas, groundwater sources have been reserved for irrigators, rural users and small towns and cities whereas water from surface reservoirs has gone to cities with large populations that can absorb the costs of alternative water sources.

Water marketing. By allowing for water marketing, this bill provides an open invitation to utilities and cities with taxation powers to buy up those rights as the next cheapest source of water, failing to reduce aquifer dependency and decreasing the chances that these entities will explore alternative water sources in the near future.

Only the authority could purchase water rights, creating a monopoly and putting farmers out of business by raising fees to a level that agriculture cannot afford to pay. Moreover, by allowing water marketing, this bill would not sufficiently allow for the unintended conservation that could occur by failure of a resident to use all of their allotted water.

Boundaries. The boundaries identified in this bill fail to include all areas of the aquifer, specifically excluding Kinney County, which overlies a significant portion of the aquifer's artesian and recharge zones. Moreover,

Guadalupe and Caldwell counties would be included even though they are not directly over the aquifer.

Transfer of authority. By allowing the authority to transfer its power to a local Chapter 52 Underground Water Conservation District, SB 1477 could be interpreted as giving the authority the capability of handing over all of its regional power to one District, giving that one UWCD the ability to regulate water use throughout the region.

Underground water conservation districts. This bill reduces Chapter 52 districts in the Edwards region to mere "shell districts" subject to a regional authority that could revoke district power at any time. Instead, this bill should vest control in the well-tested Chapter 52 water districts that have been the traditional water distribution authorities in the past.

Edwards Underground Water Conservation District. By abolishing the Edwards District, SB 1477 would be removing an authorized UWCD that has traditionally adequately represented its member counties. The decision regarding whether to continue this District should be left with the District's residents and not unilaterally decided by the state.

Uvalde County validation. This district does not legally exist because it was not created according to law. The 1989 attorney general opinion confirmed that the water commission is the only governmental body with jurisdiction over the creation of a UWCD. In 1973, HB 935 gave the water commission exclusive authority to create a district and removed that authority from the local commissioners court. By these standards, the bill should not *validate* a district that does not legally exist, but instead should *create* the Uvalde UWCD.

NOTES:

The House Natural Resources Committee reported a committee substitute for SB 1477 (analyzed in the May 22 *Daily Floor Report*) that was returned to the Calendars Committee on a point of order during floor consideration on May 22. The Senate engrossed version of the bill was ordered printed and distributed and was placed on today's calendar.